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Applicant : RATHERT  
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For : THREE-SIDE...  
Art Unit : 3724  
Examiner : Kenneth E. Peterson  
Dated : May 17, 2005

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

REPLY BRIEF

In response to the Examiner's Answer of March 18, 2005 Applicant provides the following remarks:

One of the more basic concepts of the present invention is the structure of the unit frame connecting a cutting strip and a knife. In the embodiment shown by Figure 3, this unit frame is represented by reference 8, and connects knife 10 to cutting strip 14. Applicant is enclosing a marked up Figure 3 showing the unit frame 8 with green crosshatching, and the respective knife labeled 10. As one can see from Figure 3, the unit frame 8 is designed in such a way so that the pressing and cutting forces from the knife 10 pressing against the cutting strip 14 are

absorbed by the unit frame 8. When a stack of paper is to be cut between knife 10 and cutting strip 14, a downward force is applied by the knife 10. According to basic physics, an equal but opposite force, will be applied to the unit frame 8 in the upward direction by the knife 10. The downward force of the knife 10 is received by the cutting strip 14 which then applies it to the unit frame 8. As one can see from Figure 3, the unit frame 8 is designed so that the downward force received by the cutting strip 14 is counteracted by the equal but opposite force generated when the knife 10 is forced downward. It is applicant's position that a person of ordinary skill would understand, from the specifications and drawings, how the unit frame 8 absorbs cutting/pressing forces between knife and cutting strip during a cut.

The cutting station 2, with the unit frame 8, the knife 10 and the cutting strip 14 is mounted on a support frame 4. The cutting station 2 is movably mounted on the support frame 4 to adjust for different size stacks of paper, and for access to different sides of the cutting station. The support frame is not designed to absorb cutting forces, but instead only needs to be designed to support the weight and dynamic forces, such as momentum, when the cutting station is moved in its entirety on the support frame 4.

Applicant does not find these concepts to be difficult to understand, or especially complicated. The present application has the disadvantage of being based on a German application, and suffering from a translation from the German language and in a style which more technically challenges an audience. However, the basic concepts of the unit frame 8 absorbing cutting/pressing forces, and the support frame 4 only being designed to support the weight and dynamic forces, are clearly present in the application.

In the Examiner's Answer, problems A and B are indicated. Problem A appears to address the identity of the forces. As described throughout the specification and claims, as well as in the above paragraphs, the forces can be divided into those which are absorbed by the unit frame 8, and those forces which are absorbed by the support frame 4. The specification clearly indicates that pressing and cutting forces remain within the compact units, and that the support frame is loaded only by the weights and dynamic forces of the cutting units. From Figure 3 of the present application, a person of ordinary skill in the art can see that forces between knife 10 and the cutting strip 14 are absorbed by the unit frame 8 which is within the compact unit 2.

The specification clearly indicates that cutting unit 2 is movably mounted on the support frame 4. Therefore the person of ordinary skill would clearly understand that the support frame 4 supports the weight of the cutting unit 2. This person of ordinary skill would also understand that the support frame 4 would also need to absorb any forces caused by relative movement between the cutting unit 2 and the support frame 4. The Examiner's Answer indicates that the "pressing and cutting forces" are undoubtedly "dynamic forces". However, the application recites that the dynamic forces are dynamic forces of said cutting units, and it is meant to describe dynamic forces of the cutting units as a whole, such as when the whole cutting unit moves relative to the support frame 4. Forces from the movement of the knife 10 can be considered dynamic forces, but these forces are clearly absorbed by the unit frame 8 as shown in Figure 3. Therefore it is applicant's position, that a person of ordinary skill would not be led to believe that dynamic forces of the knife itself are to be substantially absorbed the support

frame 4.

The relationship, shown in Figure 3, of the unit frame 8 to the knife 10 and to the cutting strip 14, and the movable relationship of the cutting unit 2 to support frame 4, clearly indicate to a person of ordinary skill in the art, how the forces are divided. Therefore is applicant's position that a person of ordinary skill in the art can identify how the forces are divided from the description in the specification, drawings and claims, and without undue experimentation.

Problem B states that it is not clear how one it would build such a device even if one did understand what forces are transmitted. Applicant is unsure why it would be difficult to design a unit frame which absorbs pressing and cutting forces. A preferred unit frame is shown in Figure 3 by reference 8, and includes a simple frame in the shape of the letter C, and the frame would need to be made of material/size/shape which would be strong enough to absorb the force of the knife 10 pressing against the cutting strip 14. Applicant does not find this to be technically challenging, and any recently graduated mechanical engineer, or experienced machine shop, should be able to make such a frame once given instructions to do so.

The discussion of problem B describes many different forces that could occur during the pressing and cutting, and possible ways to minimize these forces such as by employing counterbalances, and suggests for example a "recoilless rifle". The Examiner appears to have his own concept of how pressing and cutting forces are to be absorbed, and appears to ignore the simple C shape shown in Figure 3. Applicant is not limiting itself to just structure having a C shape, but applicant prefers such a structure, and finds the structure shown in Figure 3 to

be the best mode of carrying out the absorbing of the pressing and cutting forces. Applicant respectfully requests that the claims be interpreted in view of the specification and drawings, and not a complex counterbalance/impact force compensator as conceived by the Examiner. It is applicant's position that if the claims are interpreted based on the specification and drawings, especially the C shape of the unit frame 8, a person of ordinary skill would be able to understand which forces are to be absorbed by the unit frame, and which forces are to be absorbed by the support frame. Also, the construction of such devices, such as the C shape as shown in the drawings, would be well within the abilities of one of ordinary skill.

#### PRESSING ELEMENT ADAPTERS

If the Board of Appeals desires, information can be added to the specification drawing giving generic and well-known descriptions for the terms "telescoping, shutter-like and accordion-like", in order to overcome the related rejection, or future objection.

#### 112, 2<sup>nd</sup>.

In this portion of the Examiner's Answer, the Examiner feels that it is not clear what weight should be given to the phrase "the cutting units absorb substantially all forces".

Applicant notes that claim 20 sets forth that "said unit frame substantially absorbing all forces between said knife and said cutting strip during the oblique swing cut". As described previously, when the knife cuts the paper there's a force of the knife on the paper and the cutting strip, and an opposite force. The unit frame is shown by reference 8 in Figure 3, and

a person of ordinary skill in the art could see how the unit frame 8 absorbs the forces between the knife and the cutting strip. Since the claims are to be read in light of the specification, it is applicant's position that the weight which should be given to this phrase in claim 20 is clear.

Claim 2 sets forth "a unit frame that substantially absorbs all flow of forces from the squeezing cut", and that "the support frame is loaded only by the weights and dynamic forces of the cutting units". The Examiner's paraphrasing of claim 2 does not include the further limiting features of which forces are absorbed. When one considers the further limiting features, and the information provided in the specification and drawings, is at applicant's position that it is clear what weight should be given to claim 2.

The Examiner's Answer further states that the term "substantially" is vague. Applicant notes that the final rejection has not commented on this term. Therefore it appears that any problems with this term is a "new ground of rejection". However, the Examiner's Answer does not indicate that any new grounds of rejection are present. Therefore applicant respectfully requests that the comments with regard to the term "substantially" be removed from this Examiner's Answer, or the Examiner specifically indicates that the Examiner's Answer includes a new ground of rejection.

#### Prior Art - 103

Note 2 indicates that the Examiner looks to applicant's drawings for understanding of the term "closed compact units". The Examiner feels that the pressing strip 19, rack 20 and motor 3 are part of the close compact units. Applicant points out that elements 15 and 17 can

also be considered to be parts of the closed compact units. Figure 3 clearly shows that all of these elements are connected through the unit frame 8. A person of ordinary skill in the art would understand that the unit frame 8 connects all these elements to form the “closed compact unit”.

The examiner appears to be taking the liberty that because these parts are intermingled with other parts of the cutter, the term “closed” can be given a meaning which is exactly opposite to the normal meaning of “closed”. These parts in the present invention are closed through a unit frame 8. Applicant finds no teaching no suggestion in Sarring of any structure which is similar to the unit frame 8. Therefore if the “close compact unit” is interpreted based on Figure 3 of the present application, Sarring cannot anticipate the “close compact unit” of the present invention.

In note 3, the Examiner indicates that Applicant’s device and Sarring are so structurally similar that Sarring has the same absorption of forces that Applicant’s device does. However, Sarring does not have any unit frame 8 as in the present invention which connects a knife to a cutting strip, and connects upper and lower portions of a pressing block, and is movable on a support frame. In particular Sarring does not have any such structure which makes the connections of the unit frame 8 of the present invention. Therefore the structure in Sarring is completely different, and based on the Examiner’s reasoning, the structure of Sarring cannot absorb the forces that the present invention does.

Applicant notes that in this section of the Examiner’s Answer, the Examiner provides much more detail with regard to the prior art rejections. Such detail has not been found in the

final rejection. Therefore it appears that the Examiner is again making new grounds of rejection in the Examiner's Answer. However there is no indication that a new ground of rejection has been made here. Applicant respectfully requests that this prior art rejection be based on the original statements made in the final rejection, or that a new Examiner's Answer be made specifically indicating that new grounds of rejection are being presented.

#### (11) RESPONSE TO ARGUMENT

##### Issue 1 - 112, 1<sup>st</sup>:

This portion of the Examiner's Answer indicates that one must look to the specification to see how the cutting units are built and would quickly be confused by phrases in the specification. Applicant notes that one must also look to the drawings, in particular to Fig. 3. It is Applicant's position that a person of ordinary skill in the art would easily see from Fig. 3 how the cutting units are built and would understand the phrases in the specification based on Fig. 3.

##### Issue 2 - 11, 2<sup>nd</sup>:

This portion of the Examiner's Answer feels that if the cancellation of forces is so mundane, then why has Applicant not shown how it is done. Applicant notes that the courts have decided that "a patent specification need not teach, and preferably omits, what is well known in the art". *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986).



This portion of the Examiner's Answer also indicates that the cancellation of even some of the forces is a complex issue and not something that would be within the skill of an ordinary mechanical engineer. Applicant must respectfully traverse this statement, since a simple unit frame in a C shape as shown in Fig. 3 is able to cancel forces from a knife pressing against a cutting strip. Applicant does not feel that canceling forces in this way is a complex issue, and Applicant believes that any mechanically talented high school student would be able to understand how the cancellation of forces occurs in Fig. 3.

Issue 3 - 103 and prior art:

Applicant has argued that such structures as the telescoping adapters do not need further explanation since they are known in the prior art. The Examiner feels that it is obvious to place a squeezing cut in Sarring since it would be obvious to replace one known type of cutting with another. Applicant is still confused as to why it would be obvious to replace one type of cut with another known but not explained or suggest cut, while a person of ordinary skill in the art would be confused when told to use a telescoping adapter, which is known, but not explained. If a person of ordinary skill in the art is smart enough to replace one type of cut with another, this person is clearly smart enough to take a known telescoping adapter and insert it into the present invention as described.

This portion of the Examiner's Answer also states that Sarring has generally the same cutting unit and refers to Fig. 34. Applicant has reviewed Fig. 34, and finds no teaching nor suggestion of any structure where a cutting unit substantially absorbs all forces between a knife

and a cutting strip, and where that same cutting unit is movably mounted on a common support frame. Instead it appears that the structure shown in Fig. 4 is integral with any support frame in Sarring and therefore cannot absorb cutting forces, while also being movable relative to the support frame. Instead it appears that any structure in Sarring which absorbs cutting forces, is part of the support frame, and is therefore not movable relative to the support frame.

For all of the above reasons, Applicant again requests that Board to allow the claims in this application.

Respectfully submitted  
for Applicant,

By: 

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TD:tf  
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Enclosed:      Marked-Up Fig. 3

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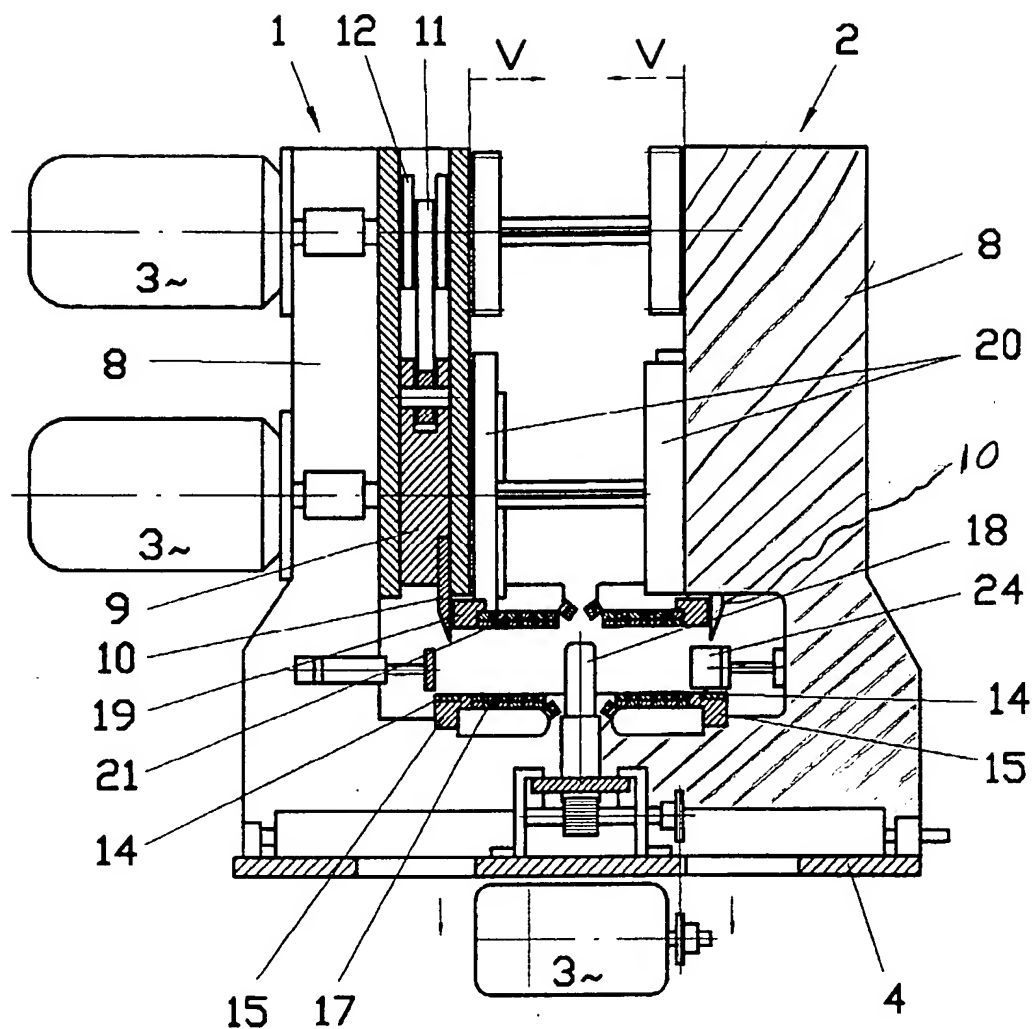
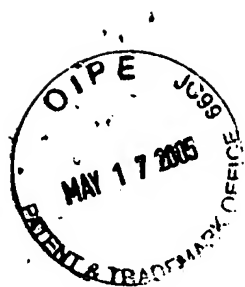
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BY: *Jonis Ann Fonte* DATE: May 17, 2005



MARKED-UP FIG. 3